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grounds that are not necessitated by an amendment. According to MPEP §706.07(a):

Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c)...

In an Office action dated September 8, 2005, the Office rejected claims 1 and 12 under 35 U.S.C. §102(e) as being anticipated by Radwanski, et al. (U.S. Patent No. 6,190,735); claims 3-4, 11, and 13-14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Radwanski, et al. in view of Taylor (U.S. Patent No. 2,935,437); and claims 7, 9-10, and 17-20 were rejected under 35 U.S.C. §103(a) as unpatentable over Radwanski, et al. in view of Taylor and further in view of Sisson (U.S. Patent No. 3,303,576).

In the response to this Office action, filed December 8, 2005, claims 1 and 12 were amended to introduce the requirement that the temperature of the heated air is at least about 190°C. This requirement, however, was already present in claims 7 and 17, as pending at the time the September 8, 2005 Office action was issued. For instance, claim 7 was directed to a process as set forth in claim 1 wherein the temperature of the heated air is at least about 190°C. Claim 17 was similar, except depended from claim 12.

The subject matter of amended claims 1 and 12 was thus before the Office (present in claims 7 and 17) at the time the

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September 8, 2005 Office action was issued. The Office has now rejected amended claims 1 and 12 under 35 U.S.C. §103(a) as being unpatentable over Radwanski, et al. in view of Sisson. The Office has made this rejection final despite the fact that these new rejections were not necessitated by applicant's amendment. Accordingly, the new rejections of the claims were improperly made final.

2. Rejection of Claims Under 35 U.S.C. §103(a) (¶2)

Reconsideration is requested of the rejection of claims 1, 9-10, 12, and 18-19 under 35 U.S.C. §103(a) as being unpatentable over Radwanski, et al. (U.S. 6,190,735) in view of Sisson (U.S. Patent No. 3,303,576).

Claim 1 is directed to a process for manufacturing a cellulosic paper product. The process comprises: forming an aqueous suspension of papermaking fibers; introducing sodium bicarbonate into said aqueous suspension; depositing said aqueous suspension onto a sheet-forming fabric to form a wet web; and through-drying said wet web by passing heated air through said wet web. The temperature of the heated air is at least about 190°C.

Independent claim 12 is similar to claim 1, except the sodium bicarbonate is introduced into the aqueous suspension prior to depositing the aqueous suspension onto the sheet-forming fabric.

Radwanski et al. disclose a process for treating a fibrous material comprising: providing a liquid suspension composed of fibrous material; intermixing the liquid suspension of fibrous material with a treatment over a time period  $T_1$ ; depositing the

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liquid suspension of fibrous material and intermixed treatment onto a forming surface to form a layer and removing a substantial portion of the liquid over a period of time  $T_2$ ; and applying pressurized jets of a liquid to the layer of fibrous material to wash unused treatment from the fibrous material within a period of time  $T_3$ . In one preferred embodiment, the fibrous material is treated with reactive dyes. During treatment with the reactive dyes, the pH of the liquid suspension of fibers and dye is raised to alkali levels to enhance reactivity between the dye and fibers. One preferred alkali material for raising the pH is sodium bicarbonate.<sup>1</sup> Optionally, subsequent to the treatment process, the treated and washed material may be dried. Numerous generic drying processes including through-air drying, can drying, infra-red radiation, Yankee dryers, vacuum de-watering, microwaves, and ultrasonic energy are disclosed. Significantly, Radwanski et al. fail to disclose through-air drying by passing heated air having a temperature of at least about 190°C through the material.

Sisson discloses a two-stage apparatus for drying porous paper or tissue at very high throughput rates. During the first stage, the drying apparatus comprises an air supply means for providing a moving stream of low pressure drying air. This source of a moving stream of drying air at a pressure slightly above that of the air surrounding the major portion is connected to an air inlet duct or plenum located intermediate the web infeed and web outfeed stations. The inlet duct directs the moving stream of drying air into the roll through substantially

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<sup>1</sup> Radwanski et al. at column 12, lines 25-51.

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the length of the uncovered full length minor portion of the roll periphery in a substantially radial direction so that a uniform flow path is established for the drying air. The air moving into the inlet plenum has a temperature of approximately 450-500°F (232.2-260°C). During the second stage of drying, the only temperatures given for drying the web is if the web is to be dried to a consistency of about 80%, at the same speed and utilizing a roll diameter as described in connection with the first stage. Specifically, the temperature of the air at inlet plenum in the second stage should be approximately 250-350°F (121.1-176.7°C). Sisson does not disclose the use of sodium bicarbonate in the papermaking process.

In an attempt to remedy the shortcomings of each reference alone, the Office combines these references together and states that it would have been obvious, to one skilled in the art at the time the invention was made, to combine the teachings of Radwanski, et al. and Sisson, because such a combination would provide for improved drying of the web of Radwanski et al. as disclosed by Sisson.

In order for the Office to show a *prima facie* case of obviousness, M.P.E.P. §2143 requires that the Office must meet three criteria: (1) the prior art references must teach or suggest all of the claim limitations; (2) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references, and (3) there must be some reasonable expectation of success. The Office has clearly failed to meet its burden under number (2) above, as there is no suggestion or motivation to combine the cited references.

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As discussed above, Radwanski et al. disclose the introduction of sodium bicarbonate into a suspension of fibers, and furthermore, disclose through-air drying processes as one suitable form of drying the web material. Furthermore, Sisson discloses air drying. Applicants assert, however, there is no reason one skilled in the art would combine these teachings without using Applicants' disclosure as a blueprint. Specifically, why would one skilled in the art have been motivated to choose, for combination with a paper making process that uses sodium bicarbonate, the air drying method using heated air at temperatures as disclosed in Sisson, over the many various other through-drying methods commonly known in the art, when Sisson fails to disclose sodium bicarbonate? They would not as there is simply no motivation or suggestion to do so.

Additionally, it is well settled that the burden is on the Office to provide some suggestion of the desirability to do what the inventor has done; that is, the Office must present a convincing line of reasoning as to why the artisan would have found the claimed invention to be obvious in light of the teachings of the references. Applicants respectfully submit that the Office has not presented any reasons why the cited references should be combined, let alone a convincing line of reasoning as required by the MPEP.

As recognized by the Office, neither of the cited references expressly nor implicitly suggest the claimed invention of claim 1. As such, the Office simply states that it would have been obvious to combine the references to provide for improved drying of the web of Radwanski, et al. as disclosed by Sisson. Applicants respectfully submit that this is

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insufficient to meet the Office's burden. What does "improved drying" mean? Radwanski, et al. disclose that their web can be dried, but merely list through air drying as one of several possible methods of drying. There is no disclosure or suggestion in Radwanski, et al. (nor in Sisson) that the Sisson drying is improved over any other method known in the art with regards to the products of Radwanski, et al.

Furthermore, there are a myriad of through-drying methods known in the art, many of which are used to dry wet webs. What is important is that there is no motivation or suggestion to use the through air-drying method of Sisson, which fails to disclose using sodium bicarbonate in a suspension of papermaking fibers, over any of the other number of through-drying methods described in the art. With all due respect, it appears that the Office has used impermissible hindsight analysis and reconstruction when combining the Radwanski et al. reference with the Sisson reference.<sup>2</sup>

Because there is no motivation or suggestion to combine the references cited by the Office, claims 1 and 12 are patentable over the cited references. As such, claims 9-10, which depend on claim 1 are patentable for the same reasons as claim 1 set forth above, as well as for the additional elements they require. Additionally, claims 18-19, which depend on claim 12

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<sup>2</sup> M.P.E.P. §2142 provides that in order to reach a proper determination under 35 U.S.C. §103(a), the Examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. Knowledge of Applicants' disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the "differences." The tendency to resort to "hindsight" based upon Applicants' disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible

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are patentable for the same reasons as claim 12 set forth above, as well as for the additional elements they require.

3. Rejection of Claims Under 35 U.S.C. §103(a) (¶3)

Reconsideration is requested of the rejection of claims 3-4, 11, 13-14, and 20 under 35 U.S.C. §103(a) as being unpatentable over Radwanski et al. (U.S. Patent No. 6,190,735) in view of Sisson (U.S. Patent No. 3,303,576) and further in view of Taylor (U.S. 2,935,437).

Claims 3-4 and 11 depend from claim 1, which is discussed above. Specifically, claims 3-4 further limit the pH of the aqueous suspension after the sodium bicarbonate is introduced. Claim 11 further requires the papermaking fibers to predominantly comprise secondary cellulosic fibers. Furthermore, claims 13-14 depend from claim 12 and further limit the pH of the aqueous suspension after the sodium bicarbonate is introduced, and claim 20 depends from claim 12 and further requires the papermaking fibers to predominantly comprise secondary cellulosic fibers.

Radwanski, et al. and Sisson are discussed above.

Taylor discloses a process for making a pigment-filled paper of high brightness and opacity while reducing the losses of pigment in the papermaking machine. An aqueous suspension of slurry of papermaking fibers is formed to which is added finely divided hydrated amorphous calcium silicate while maintaining the pH of the slurry of from 4 to 9.2 by addition of an acidic material. Acid salts such as sodium bicarbonate are included

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hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

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among the many disclosed acidic materials. The acidic material is said to react and form a water insoluble salt of the calcium silicate which precipitates and adheres firmly to the fibers. After precipitation of the calcium silicate on the cellulosic fiber surfaces, the slurry is sheeted into paper on the wire of a papermaking machine. The web is couched from the wire and subsequently dried, calendered and optionally coated according to convention procedures.<sup>3</sup>

Initially, applicants note that independent claims 1 and 12 have not been rejected under §103 over the combination of Radwanski, et al., Sisson, and Taylor. Since, claims 3-4, 11, 13-14, and 20, depend from either claim 1 or 12, these claims are likewise patentable over this combination of references.

Furthermore, as noted above, in order for the Office to show a *prima facie* case of obviousness, there must be some suggestion or motivation to combine the reference teachings. The teaching or suggestion to make the combination must be found in the prior art, not in Applicants' disclosure. Additionally, as noted in M.P.E.P. §2143.01, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.

For the reasons set forth above, with respect to claims 1 and 12, there is no motivation to combine the teachings of Radwanski, et al. and Sisson. The Taylor reference likewise fails to provide such motivation. While the Taylor reference does disclose drying a web material, like Radwanski, et al.,

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<sup>3</sup> See Taylor at col. 4, lines 48-59.



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nowhere does the Taylor reference teach or suggest through-drying a web material by passing heated air at a temperature of at least about 190°C through the material. There is simply no motivation for one skilled in the art to choose for combination with a paper making process that uses sodium bicarbonate, the air drying method using heated air at temperatures as disclosed in Sisson over the many various other through drying methods commonly known in the art, when Sisson fails to disclose the use of sodium bicarbonate. Claims 3-4, 11, 13-14, and 20 are thus patentable over the cited references.

### 3. Allowable Subject Matter

Applicants thank the Examiner for the indication that claims 26-41 are allowed, and that claims 5-6 and 15-16 would be allowable if rewritten in independent form.

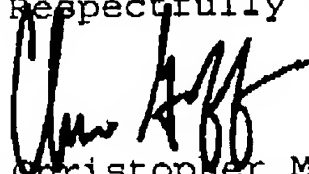
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Conclusion

In light of the foregoing remarks, applicants respectfully submit that the claims of the instant application are in condition for allowance, and therefore, respectfully request allowance of all pending claims.

The Commissioner is hereby authorized to charge any fee deficiency in connection with this response to Deposit Account Number 19-1345 in the name of Senniger Powers.

Respectfully Submitted,



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